

NOTES ON *CAFIUS OPACUS* LE CONTE WITH EXTENSIONS OF RANGE (COLEOPTERA: STAPHYLINIDAE)

IAN MOORE AND R. E. ORTH

Department of Entomology, Division of Biological Control,  
University of California, Riverside, CA 92521

*Cafius opacus* LeConte is rare in collections and has been mentioned in the literature only a few times. A few recently collected specimens considerably extend its known range.

*C. opacus* was originally described by LeConte (1863) from "San Diego, California, under seaweed on the beach". It was next mentioned by Casey (1885) in the notes following his description of *Phytosus* (= *Bryobiota*) *bicolor*. Casey stated "This species [*Bryobiota bicolor*] is extremely abundant under the densely packed seaweed thrown up on the shores of the inner harbor in the Spring of the year; occurring with it and also in great abundance were *Cafius* (*Remus*) *decipiens* Lec., *Motschulium sinuaticolle* Matth., *Phycocoetes testaceus* Lec., and, in less numbers, *Cafius* (*Remus*) *opacus* Lec.". Horn (1894) reported it from "San Diego, California, and Baja, California (LeConte)". Moore (1937) said "Mr. Albert Watson found a specimen of this species on carrion at the beach at Torrey Pines in April". Moore and Legner (1973) speculated that this and some other southern California seashore species may ordinarily be found abundantly along the poorly explored Pacific shores of Baja California.

Until recently the only specimens known to us have been a small series in the collection of the California Academy of Sciences taken by E. C. VanDyke at Point Loma, California, and a specimen collected by Ian Moore at La Jolla, California, on 22 November, 1950. The latter was crawling up the wall of a cave on the floor of which was a large mass of decaying seaweed, and from whose mouth were flying many of the usually scarce *Cafius sulcicollis* LeConte and *Aleochara arenaria* Casey.

With the exception of the mention of "Baja California" by Horn, all of the preceding localities are within the city limits of San Diego, California.

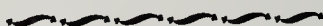
Among material sent to us by Vincent Lee of San Francisco is a specimen of *C. opacus* from Socorro Dunes, Baja California, Norte, Mexico, 17 July, 1974, collected by R. H. Hardon, V. Lee, and W. E. Savary. This record extends the known range of the species about 200 miles south.

On 18 October, 1976, R. E. Orth collected six *C. opacus* at Refugio State Beach, Santa Barbara County, California. These were in company with *C. canescens* Mannerheim, *C. lithocharinus* LeConte, *C. luteipennis* Horn, *C. seminitens* Horn, *Aleochara arenaria* Casey, and *Hadrotus crassus* LeConte. They were generally taken beneath festoons of decomposing seaweed on and under a conglomerate of rock, beach pebbles, and sand. This locality is about 250 miles north of San Diego not far south of Point Conception, which is a barrier to many seashore insects (Moore and Legner, 1976).

It is of interest that on two occasions (Casey, Moore), this rare species was found in company with other species which are also known to be rare. This may indicate that, under those particular circumstances, special ecological conditions prevailed which enhanced their reproductive capacities. Usual ecological conditions in southern California may be marginal for them.

## REFERENCES CITED

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## BOOK REVIEW

**The beetles of America**, by Richard Headstrom. 1977. A. S. Barnes and Company, Inc., P. O. Box 421, Cranbury, N.J. 08512. Hardbound, 488p., \$17.50.

Richard Headstrom took on quite an assignment when singlehanded he sat down to write, and illustrate, a guide to the beetles of America. This guide was prepared for the layman and may be useful also to high school biology teachers and to nature instructors. Twelve pages are devoted to the external morphology of beetles and the diagrams are clear and helpful. The diagram of the antenna is obviously patterned after the diagram in Comstock's *An Introduction to Entomology* and Headstrom uses the term *Clavola* (from Comstock) rather than the currently used term, *Flagellum*. The remainder of the Introduction includes material on food beetles eat, their eggs, hatching and development, molting, insect color, migration, and defense. The only key present is a dichotomous key to families which refers the reader to the page on which each families' general characteristics are discussed. For many of the families an outline diagram of a "typical" beetle is included. For each species presented, its scientific name, length, description, and distribution is given. A total of about 1200 species is included (this of course is but a fraction of the beetles found in the 48 contiguous states of the U.S.). Black and white diagrams of the elytra of about 500 species are depicted and about a dozen black and white photographs are included. The major shortcoming of this guide is that its title implies that the guide covers "the beetles of America" yet only a fraction of them are actually mentioned. The most meaningful way to cover this subject would be through a regional series of guides such as those planned by the Biological Research Institute of America, Inc. Such an approach to the identification of beetles in America is long overdue.

—Paul P. Shubeck